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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,874	03/16/2005	Matthias Winkel	ZAHFRI P735US	9284
20210	7590	05/30/2007	EXAMINER	
DAVIS & BUJOLD, P.L.L.C. 112 PLEASANT STREET CONCORD, NH 03301			YOUNG, EDWIN	
			ART UNIT	PAPER NUMBER
			3681	
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			05/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/527,874

Applicant(s)

WINKEL ET AL.

Examiner

Edwin A. Young

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 43-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 44,46,49,50 and 55 is/are allowed.
- 6) ☒ Claim(s) 43,45,47,48,51-54,56 and 57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

This action is responsive to the amendment filed 4/30/2007. Claims 22-42 have been cancelled. New claims 43-57 have been entered. Claims 43-57 are currently pending in this application.

Drawings

The drawings were received on 4/30/2007. These drawings are acceptable.

Claim Objections

Claim 47 is objected to because of the following informalities: line 2, "increases" should be changed to - -increasing- - to put the claim in proper method form. Appropriate correction is required.

Claim 48 is objected to because of the following informalities: line 2, "is" should be changed to - -being- - to put the claim in proper method form. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claims 47, 52 and 57, the phrase "preferably" renders the claims indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 43, 54 and 56 are rejected under 35 U.S.C. 102(e) as being anticipated by EVANS et al. (US 2003/0125850 A1).

Regarding claim 43, EVANS et al. discloses a method for reducing disturbing vibrations in a motor vehicle in which the disturbing vibrations are determined by a control and regulating device using suitable sensors, at least one device is activated when previously established limiting values are exceeded by the control and regulating device such that an amplitude of the disturbing motion is completely eliminated or at least damped, the at least one device acts in at least one rotating component in a motor vehicle drive train such that a latter component or components is/are continuously or periodically braked in rotary motion when the disturbing vibrations occur or is/are excited to a compensatory vibration (see Figs. 1 and 4; ABSTRACT; page 1, paragraphs [0001], [0005] and [0010]; page 2, paragraphs [0011], [0012] and [0017]); and actuating one of a starting clutch or gear box in the drive train by the control and regulating device such that torque transmission capacity oscillates with the frequency of the disturbing vibration and has a phase offset in relation to the disturbing vibration through which the amplitude of the disturbing vibration is reduced to a predetermined value (see Fig. 4 and page 1, paragraph [0005]; page 2, paragraphs [0011]). Note that

EVANS et al. discloses using the transmission ratio to control the motor (16) torque transmission capacity in the manner described in claim 43.

Regarding claim 54, EVANS et al. discloses a device for reducing disturbing vibrations in a drive train and in a motor vehicle (see Figs. 1 and 4). The device comprising a control and regulating device (30); sensors (42); leads (wires attached to (30)); the control and regulating device being activated when previously established limiting values are exceeded by the control and regulating device such that the disturbing vibrations are completely eliminated or at least damped in amplitude, the device acts on at least one rotating component (18) in the drive train such that a latter component or components is/are continuously or periodically brought into vibration or braked in rotary motion when the disturbing vibrations occur or are excited to a compensatory vibration causing one or more of a vibration frequency, vibration amplitude and vibration phase angle to be constructed in relation to the one or more of a frequency, amplitude and vibration phase angle of the disturbing vibration causing a damping of the amplitude of the disturbing vibration with a superposition with the disturbing vibration (see ABSTRACT; page 1, paragraphs [0001], [0005] and [0010]; page 2, paragraphs [0011], [0012] and [0017]); and wherein the control and regulating device (30) is connected to an actuating device for activating a synchronization device in a gear box (14) through a control line (36) (see page 1, paragraph [0010]). Note that EVANS does not expressly state the use of an actuating device for activating a synchronization device in a gear box. However, EVANS et al. implies using an

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actuating device by stating the use of the control and regulating device (30) to control the shifting of the transmission. This is interpreted as meeting the claim language.

Regarding claim 56, EVANS et al. discloses a device for reducing disturbing vibrations in a drive train and in a motor vehicle (see Figs. 1 and 4). The device comprising a control and regulating device (30); sensors (42); leads (wires attached to (30)); the control and regulating device being activated when previously established limiting values are exceeded by the control and regulating device such that the disturbing vibrations are completely eliminated or at least damped in amplitude, the device acts on at least one rotating component (18) in the drive train such that a latter component or components is/are continuously or periodically brought into vibration or braked in rotary motion when the disturbing vibrations occur or are excited to a compensatory vibration causing one or more of a vibration frequency, vibration amplitude and vibration phase angle to be constructed in relation to the one or more of a frequency, amplitude and vibration phase angle of the disturbing vibration causing a damping of the amplitude of the disturbing vibration with a superposition with the disturbing vibration (see ABSTRACT; page 1, paragraphs [0001], [0005] and [0010]; page 2, paragraphs [0011], [0012] and [0017]); and wherein the control and regulating device is connected to an abrasion-resistant permanent brake (16) for braking motor vehicle drive shafts (24a and 24b) through a control line (38).

Claims 45, 51, 53, 56 and 57 are rejected under 35 U.S.C. 102(b) as being anticipated by RANSON et al. (GB 2,346,351 A).

Regarding claim 45, RANSON et al. discloses a method for reducing disturbing vibrations in a motor vehicle in which the disturbing vibrations are determined by a control and regulating device using suitable sensors, at least one device is activated when previously established limiting values are exceeded by the control and regulating device such that an amplitude of the disturbing motion is completely eliminated or at least damped, the at least one device acts in at least one rotating component in a motor vehicle drive train such that a latter component or components is/are continuously or periodically braked in rotary motion when the disturbing vibrations occur or is/are excited to a compensatory vibration (see Figs. 1 and 4a-4c; ABSTRACT, page 1, lines 20-21; page 2, lines 8-15; page 3, lines 21-22; and page 4, lines 1-10 and 15-18); and arranging an abrasion-free permanent brake (13) actuated by the control and regulating device (15) behind a transmission such that with a rise in the vibration amplitude of the disturbing vibration, the permanent brake brakes a rotational speed of wheel drive shafts such that the amplitude of the disturbing longitudinal oscillation is reduced to a predetermined value (see page 4, lines 15-18).

Regarding claim 51, RANSON et al. discloses a method for reducing disturbing vibrations in a motor vehicle in which the disturbing vibrations are determined by a control and regulating device using suitable sensors, at least one device is activated when previously established limiting values are exceeded by the control and regulating device such that an amplitude of the disturbing motion is completely eliminated or at least damped, the at least one device acts in at least one rotating component in a motor vehicle drive train such that a latter component or components is/are continuously or

periodically braked in rotary motion when the disturbing vibrations occur or is/are excited to a compensatory vibration (see Figs. 1 and 4a-4c; ABSTRACT, page 1, lines 20-21; page 2, lines 8-15; page 3, lines 21-22; and page 4, lines 1-10 and 15-18); and determining via the control and regulating device rotational speeds of a clutch input side and a clutch output side with aid of rotational speed sensors, and ascertaining motor vehicle acceleration by the control and regulating device with aid of a sensor unit that recognizes longitudinal acceleration (see page 4, lines 1-6).

Regarding claim 53, RANSON et al. discloses a device for reducing disturbing vibrations in a drive train and in a motor vehicle (see Figs. 1 and 4a-4c). The device comprising a control and regulating device (15); sensors (29, 30 and 33-35); leads (unlabeled wires attached to (15)); the control and regulating device being activated when previously established limiting values are exceeded by the control and regulating device such that the disturbing vibrations are completely eliminated or at least damped in amplitude, the device acts on at least one rotating component (20) in the drive train such that a latter component or components is/are continuously or periodically brought into vibration or braked in rotary motion when the disturbing vibrations occur or are excited to a compensatory vibration causing one or more of a vibration frequency, vibration amplitude and vibration phase angle to be constructed in relation to the one or more of a frequency, amplitude and vibration phase angle of the disturbing vibration causing a damping of the amplitude of the disturbing vibration with a superposition with the disturbing vibration (see ABSTRACT; page 1, lines 20-21; page 2, lines 8-15; page 3, lines 21-22; and page 4, lines 1-10 and 15-18); and wherein the control and

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regulating device is connected to an actuating device for activating a clutch via a control line (see page 3, lines 14-16). Note that RANSON et al. implies the use of a foot-actuated clutch which, through sensors (29) and (30), is connected to the control and regulating device (15).

Regarding claim 56, RANSON et al. discloses a device for reducing disturbing vibrations in a drive train and in a motor vehicle (see Figs. 1 and 4a-4c). The device comprising a control and regulating device (15); sensors (29, 30 and 33-35); leads (unlabeled wires attached to (15)); the control and regulating device being activated when previously established limiting values are exceeded by the control and regulating device such that the disturbing vibrations are completely eliminated or at least damped in amplitude, the device acts on at least one rotating component (20) in the drive train such that a latter component or components is/are continuously or periodically brought into vibration or braked in rotary motion when the disturbing vibrations occur or are excited to a compensatory vibration causing one or more of a vibration frequency, vibration amplitude and vibration phase angle to be constructed in relation to the one or more of a frequency, amplitude and vibration phase angle of the disturbing vibration causing a damping of the amplitude of the disturbing vibration with a superposition with the disturbing vibration (see ABSTRACT; page 1, lines 20-21; page 2, lines 8-15; page 3, lines 21-22; and page 4, lines 1-10 and 15-18); and wherein the control and regulating device is connected to an abrasion-resistant permanent brake (13) for braking motor vehicle drive shafts (22) through a control line (unlabeled).

Regarding claim 57, RANSON et al. discloses a device for reducing disturbing vibrations in a drive train and in a motor vehicle (see Figs. 1 and 4a-4c). The device comprising a control and regulating device (15); sensors (29, 30 and 33-35); leads (unlabeled wires attached to (15)); the control and regulating device being activated when previously established limiting values are exceeded by the control and regulating device such that the disturbing vibrations are completely eliminated or at least damped in amplitude, the device acts on at least one rotating component (20) in the drive train such that a latter component or components is/are continuously or periodically brought into vibration or braked in rotary motion when the disturbing vibrations occur or are excited to a compensatory vibration causing one or more of a vibration frequency, vibration amplitude and vibration phase angle to be constructed in relation to the one or more of a frequency, amplitude and vibration phase angle of the disturbing vibration causing a damping of the amplitude of the disturbing vibration with a superposition with the disturbing vibration (see ABSTRACT; page 1, lines 20-21; page 2, lines 8-15; page 3, lines 21-22; and page 4, lines 1-10 and 15-18); and wherein the control and regulating device is connected to a rotational speed actuating device via a control line (see page 2, lines 11-13).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over RANSON et al. (GB 2,346,351 A) in view of SCHUBERT et al. (US 3,701,499).

Regarding claim 52, RANSON et al. discloses a device for reducing disturbing vibrations in a drive train and in a motor vehicle (see Figs. 1 and 4a-4c). The device comprising a control and regulating device (15); sensors (29, 30 and 33-35); leads (unlabeled wires attached to (15)); the control and regulating device being activated when previously established limiting values are exceeded by the control and regulating device such that the disturbing vibrations are completely eliminated or at least damped in amplitude, the device acts on at least one rotating component (20) in the drive train such that a latter component or components is/are continuously or periodically brought into vibration or braked in rotary motion when the disturbing vibrations occur or are excited to a compensatory vibration causing one or more of a vibration frequency, vibration amplitude and vibration phase angle to be constructed in relation to the one or more of a frequency, amplitude and vibration phase angle of the disturbing vibration causing a damping of the amplitude of the disturbing vibration with a superposition with the disturbing vibration (see ABSTRACT; page 1, lines 20-21; page 2, lines 8-15; page 3, lines 21-22; and page 4, lines 1-10 and 15-18). However, RANSON et al. does not disclose a disturbing motor vehicle longitudinal oscillation, preferably in a region of a motor vehicle seat, being recorded with the vibration sensor.

SCHUBERT et al. discloses an active fluid isolation system (see Fig. 1) having a signal indicative of a motor vehicle seat longitudinal oscillation disturbance being sent to a controller (see column 4, lines 8-16).

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It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide the device for reducing disturbing vibrations in a drive train and in a motor vehicle of RANSON et al. with a disturbing motor vehicle longitudinal oscillation in a region of a motor vehicle seat being recorded with the vibration sensor, in light of the teachings of SCHUBERT et al., in order to ensure the stabilization of the vehicle seat (see SCHUBERT et al., ABSTRACT).

Allowable Subject Matter

Claims 44, 46, 49, 50 and 55 are allowed.

Claims 47 and 48 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 4/30/2007 have been fully considered but they are not persuasive.

Applicant argues RANSON et al. '351 does not contain a "permanent brake". However, the device (13) of RANSON et al. permanently acts as a brake against oscillatory vibrations and as such is believed to meet the claim language (see page 4, lines 15-18).

Applicant argues RANSON et al. '351 "fails to disclose any sort of longitudinal acceleration sensor." However, as indicated above RANSON et al. does supply this feature. Specifically, the collection of torque sensors disclosed by RANSON et al.

supplies sufficient information to ascertain the vehicle acceleration, as only a routine manipulation of data would be required.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "control or activation of a clutch in order to dampen the amplitude of the disturbing vibrations created in the driveline") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argues EVANS et al. '850 does not disclose the "control or regulation of a starting clutch or a gearbox." However, as described in detail above EVANS et al. does supply this feature. Specifically, paragraph [0010] states, "PCM 30 controls shifting of transmission 14 via line 36."

Applicant argues EVANS et al. '850 does not disclose "activating a synchronization device or ring in a gearbox. However, paragraph [0010] states, "PCM 30 controls shifting of transmission 14 via line 36." As such, it is inherent that in order to cause a shift in transmission (14), PCM (30) must control the activation of a synchronization device or ring in the gearbox.

Regarding applicant's traversal of the combination of RANSON et al '351 and SCHUBERT et al. '499, it is noted that SCHUBERT et al. is only used to teach providing a means for monitoring vibrations at a location of a vehicle's seat. As such, the combination is believed to be valid.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin A. Young whose telephone number is 571-272-4781. The examiner can normally be reached on M-TH 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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